

What is claimed is:

1 1. A method for use in a wireless communications system including at least one
2 base station and one or more wireless terminals for identifying whether a particular
3 wireless terminal is reachable within a base station cell coverage area, the method being
4 performed in a base station and comprising the steps of:

5 transmitting a timing control order in a timing control time slot assigned to said
6 particular wireless terminal; and

7 monitoring received timing control signal time slots to determine whether a
8 timing control signal has been received from said particular wireless terminal, reception
9 of said timing control signal indicating that said particular wireless terminal is reachable
10 in said base station cell coverage area.

1 2. The method as defined in claim 1 wherein said timing control time slot is a
2 paging time slot.

1 3. The method as defined in claim 1 wherein said timing control order includes
2 the identity of said particular wireless terminal being queried.

1 4. The method as defined in claim 3 wherein said timing control order further
2 includes a prescribed time at which and a prescribed timing control signal that said
3 wireless terminal is to transmit.

1 5. The method as defined in claim 1 wherein said particular wireless terminal and
2 said base station know a priori a prescribed timing control signal and a prescribed time
3 that said prescribed timing control signal is to be transmitted by said particular wireless
4 terminal.

1 6. The method as defined in claim 1 further including steps of determining
2 whether said timing control message has been received in a prescribed interval and, if
3 not, terminating any link connection assigned to said particular wireless terminal.

1 7. The method as defined in claim 6 wherein said step of terminating includes a
2 step of transmitting a termination order to said particular wireless terminal.

1 8. The method as defined in claim 1 further including a step of transmitting said
2 timing control order a prescribed number of times, if no timing control signal is received
3 by said base station after said prescribed number of transmissions, terminating any link
4 connection to said particular wireless terminal or if a prescribed timing control signal at a

5 prescribed time is received after any of said transmissions of said timing control order
6 from said particular wireless terminal maintaining any link connection to said particular
7 wireless terminal.

1 9. A method for use in a wireless communications system including at least one
2 base station and one or more wireless terminals for identifying whether a particular
3 wireless terminal is reachable within a base station cell coverage area, the method being
4 performed in a wireless terminal and comprising the steps of:

5 entering a monitoring mode to monitor a received paging time slot assigned to
6 said particular wireless terminal for a timing control order; and

7 in response to detecting a received timing control order for said particular wireless
8 terminal, transmitting a timing control signal in a prescribed timing control time slot.

1 10. The method as defined in claim 9 further including the steps of if no timing
2 control order is detected, entering a standby mode and entering said monitoring mode at a
3 prescribed time.

1 11. The method as defined in claim 9 further including the steps of if a terminate
2 order is detected in said monitoring mode, entering a standby mode and entering said
3 monitoring mode at a prescribed time.

1 12. The method as defined in claim 10 wherein said timing control time slot is a
2 paging time slot.

1 13. The method as defined in claim 10 wherein said timing control order includes
2 the identity of said particular wireless terminal being queried.

1 14. The method as defined in claim 13 wherein said timing control order further
2 includes a prescribed time at which and a prescribed timing control signal that said
3 wireless terminal is to transmit.

1 15. The method as defined in claim 10 wherein said particular wireless terminal
2 and said base station know a priori a prescribed timing control signal and a prescribed
3 time that said prescribed timing control signal is to be transmitted by said particular
4 wireless terminal.

1 16. Apparatus for use in a wireless communications system including at least one
2 base station and one or more wireless terminals for identifying whether a particular

3 wireless terminal is reachable within a base station cell coverage area, the apparatus
4 being in a base station and comprising:

5 a transmitter for transmitting a timing control order in a timing control time slot
6 assigned to said particular wireless terminal; and

7 a monitor for monitoring received timing control signal time slots to determine
8 whether a timing control signal has been received from said particular wireless terminal,
9 reception of said timing control signal indicating that said particular wireless terminal is
10 reachable in said base station cell coverage area.

1 17. The apparatus as defined in claim 16 wherein said timing control time slot is
2 a paging time slot.

1 18. The apparatus as defined in claim 16 wherein said timing control order
2 includes the identity of said particular wireless terminal being queried.

1 19. The apparatus as defined in claim 18 wherein said timing control order
2 further includes a prescribed time at which and a prescribed timing control signal that
3 said wireless terminal is to transmit.

1 20. The apparatus as defined in claim 16 wherein said particular wireless terminal
2 and said base station know a priori a prescribed timing control signal and a prescribed
3 time that said prescribed timing control signal is to be transmitted by said particular
4 wireless terminal.

1 21. The apparatus as defined in claim 16 wherein said monitor further determines
2 whether said timing control message has been received in a prescribed interval and, if
3 not, said transmitter is controlled to terminate any link connection assigned to said
4 particular wireless terminal.

1 22. The apparatus as defined in claim 21 wherein said transmitter is controlled to
2 transmit a termination order to said particular wireless terminal.

1 23. The apparatus as defined in claim 21 wherein said transmitter is controlled to
2 transmit said timing control order a prescribed number of times, and further including a
3 receiver for receiving timing control time slots and if no timing control signal is received
4 by said receiver after said prescribed number of transmissions, said transmitter is
5 controlled to terminate any link connection to said particular wireless terminal or if a
6 prescribed timing control signal at a prescribed time is received by said receiver after any

of said transmissions of said timing control order from said particular wireless terminal maintaining any link connection to said particular wireless terminal.

24. Apparatus for use in a wireless communications system including at least one base station and one or more wireless terminals for identifying whether a particular wireless terminal is reachable within a base station cell coverage area, the apparatus being in a wireless terminal and comprising:

a receiver controlled to enter a monitoring mode to monitor a received paging time slot assigned to said particular wireless terminal for a timing control order; and

a transmitter, responsive to detecting a received timing control order for said particular wireless terminal, to transmit a timing control signal in a prescribed timing control time slot.

25. The apparatus as defined in claim 24 wherein said particular wireless terminal, in response to no timing control order being detected, being controlled to enter a standby mode and, then, to enter said monitoring mode at a prescribed time.

26. The apparatus as defined in claim 24 wherein said particular wireless terminal, in response to a terminate order being detected in said monitoring mode, being controlled to enter a standby mode and, then, to enter said monitoring mode at a prescribed time.

27. The apparatus as defined in claim 25 wherein said timing control time slot is a paging time slot.

28. The apparatus as defined in claim 25 wherein said timing control order includes the identity of said particular wireless terminal being queried.

29. The apparatus as defined in claim 28 wherein said timing control order further includes a prescribed time at which and a prescribed timing control signal that said wireless terminal is to transmit.

30. The apparatus as defined in claim 25 wherein said particular wireless terminal and said base station know a priori a prescribed timing control signal and a prescribed time that said prescribed timing control signal is to be transmitted by said transmitter of said particular wireless terminal.

31. A method for use in a wireless communications system including at least one base station and one or more wireless terminals for identifying whether a particular

wireless terminal is reachable within a base station cell coverage area, the method comprising the steps of:

in a base station

transmitting a timing control order in a timing control time slot assigned to said particular wireless terminal, and

monitoring received timing control signal time slots to determine whether a timing control signal has been received from said particular wireless terminal, reception of said timing control signal indicating that said particular wireless terminal is reachable in said base station cell coverage area; and

in a wireless terminal

entering a monitoring mode to monitor a received paging time slot assigned to said particular wireless terminal for a timing control order, and

in response to detecting a received timing control order for said particular wireless terminal, transmitting a timing control signal in a prescribed timing control time slot.

32. Apparatus for use in a wireless communications system including at least one base station and one or more wireless terminals for identifying whether a particular wireless terminal is reachable within a base station cell coverage area, the apparatus being in a base station and comprising:

means for transmitting a timing control order in a timing control time slot assigned to said particular wireless terminal; and

means for monitoring received timing control signal time slots to determine whether a timing control signal has been received from said particular wireless terminal, reception of said timing control signal indicating that said particular wireless terminal is reachable in said base station cell coverage area.

33. Apparatus for use in a wireless communications system including at least one base station and one or more wireless terminals for identifying whether a particular wireless terminal is reachable within a base station cell coverage area, the apparatus being in a wireless terminal and comprising:

means for controlling said particular wireless terminal to enter a monitoring mode to monitor a received paging time slot assigned to said particular wireless terminal for a timing control order; and

8 means, being responsive to detecting a received timing control order for said
9 particular wireless terminal, for transmitting a timing control signal in a prescribed timing
10 control time slot.

1 34. Apparatus for use in a wireless communications system including at least one
2 base station and one or more wireless terminals for identifying whether a particular
3 wireless terminal is reachable within a base station cell coverage area, the apparatus
4 comprising:

5 in a base station

6 means for transmitting a timing control order in a timing control time slot
7 assigned to said particular wireless terminal, and

8 means for monitoring received timing control signal time slots to determine
9 whether a timing control signal has been received from said particular wireless terminal,
10 reception of said timing control signal indicating that said particular wireless terminal is
11 reachable in said base station cell coverage area; and

12 in a wireless terminal

13 means for controlling said particular wireless terminal to enter a monitoring mode
14 to monitor a received paging time slot assigned to said particular wireless terminal for a
15 timing control order, and

16 means, being responsive to detecting a received timing control order for said
17 particular wireless terminal, for transmitting a timing control signal in a prescribed timing
18 control time slot.